ABSTRACT

An electric energy storage device includes a first electrode, a gel type ionic conducting polymer electrolyte separator formed on the first electrode, and a second electrode corresponding to the first electrode. The energy storage device has an increased unit storage capacitance and more minimized size by using the gel type ionic conducting polymer electrolyte separator. Also, the energy storage device produces a reduced resistance by the gel type ionic conducting polymer electrolyte separator, such that the high frequency response characteristic is improved, the available frequency region is enlarged and the allowable ripple current is increased. A method for manufacturing the electric energy storage device includes the steps of: forming an ionic conducting polymer electrolyte separator including i) preparing common solvent for an electrolyte and for dissolving polymer and ii) dissolving polymer at least one selected from the group consisting of polymer of polyacrylate series, polyvinylidenefluoride, copolymer of polyvinylidenefluoride and polymer of polyether series in the common solvent.